REMARKS

The Examiner's indication that all of the claims distinguish over the prior art is gratefully appreciated. Furthermore, in view of the following comments and evidence submitted herewith, it is believed that the Examiner will find that the claims are supported by an enabling disclosure.

Claims 1-14 were rejected under 35 USC § 112, first paragraph as failing to comply with the enablement requirement. This rejection is respectfully traversed for the following reasons.

First, the Examiner is reminded that the specification need only be written to the level of the person skilled in the art, such that it need not describe what is within such a person's knowledge; see, MPEP §2164.05. In the present case, the undersigned has just learned that the second gear mechanism 14 used by the present applicants and disclosed in this application was derived from a text book relating to the field of lever mechanisms, i.e., *MECHANISMS in Modern Engineering Design, Volume I: Lever Mechanisms* by Ivan I. Arobolevsky, D.Sc. (Eng.), Mir Publishers, Moscow, 1975 (hereafter, "Modern Engineering"), a copy of title pages and pages 512, 513 being submitted herewith. Thus, consistent with MPEP § 2164.05, this publication is submitted as evidence of that which was well-known to those skilled in the art well prior to the present invention.

In the context of the submitted evidence, it can be seen that the knife driving arrangement shown in Fig. 5 is comprised of a first gear mechanism 15 that is a simple eccentric crank mechanism the operation of which is very basic and is well known to even basic engineering students and a second gear mechanism 14. The second gear mechanism 14 is a "long-dwell mechanism" as is shown and described at the top of page 513 of the Modern Engineering reference and the second knife 5 of Fig. 5 is connected to a lever that corresponds to "link 4" of Modern Engineering figure. As described in Modern Engineering, the second knife 5 would have a dwell at its most extended position which is approximately equal to a half-revolution of the crank part of the second gear mechanism 4.

More specifically, when the rotor means 10 of the present invention drives the crank parts of the first and second gear mechanisms 15, 14, simultaneously, as indicated in Fig. 3, the first and second knives 4, 5, are caused to be reciprocated simultaneously as required by claims 1-5 and as described in paragraph [0027]. After an initial motion of the two knives

relative to each other, due to the dwell produced by the second gear mechanism 14, the second knife 5 will virtually stop while the first knife 4 continues its reciprocating motion and cuts the ice slice after which both knives return to their initial positions.

Therefore, it is submitted that the Fig. 5 would, in fact, enable a person of ordinary skill in the art to make and use the claimed invention without any further illustrations or descriptions beyond those originally provided. In fact, MPEP §2164.05(a) states that, not only does the specification "need not disclose what is well-known to those skilled in the art," but it "preferably omits that which is well-known to those skilled and already available to the public." Thus, since drives as used in accordance with the present invention have been shown to be standard text book material since at least three decades prior to the present invention, not only was it unnecessary for such to be disclosed in detail by the applicants in the present application, but the omission thereof is the preferred approach in accordance with established Office policy, as can be seen from the above MPEP citation. Accordingly, the rejection under the first paragraph of § 112 should be withdrawn and such action is hereby requested.

While this application should now be in condition for allowance, there being no outstand prior art rejections, in the event that any issues should remain after consideration of this response which could be addressed through discussions with the undersigned, then the Examiner is requested to contact the undersigned by telephone for that purpose.

Respectfully submitted,

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Артоболевский И. И.

Механизмы
в современной
технике

Том
I

ИЗДАТЕЛЬСТВО «НАУКА»
МОСКВА

MECHANISMS in Modern Engineering Design

A Handbook
for Engineers,
Designers and Inventors

by IVAN I. ARTOBOLEVSKY, D. Sc. (Eng.)
Member, USSR Academy of Sciences

Volume I

Lever Mechanisms

Translated
from the Russian
by Nicholas Weinstein

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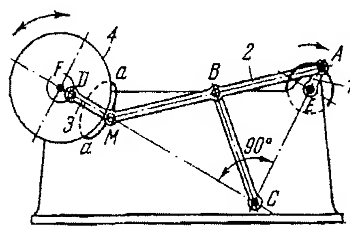
На английском языке

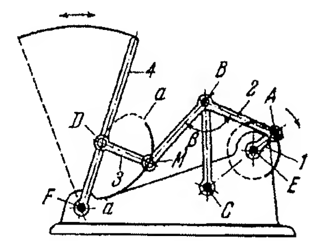
CONTENTS

756	CHEBYSHEV REVERSING AND DWELL MECHANISM	LW D



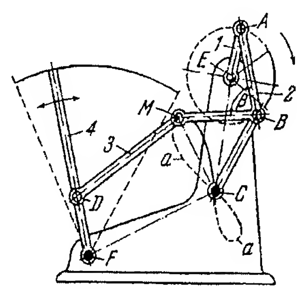
The lengths of the links comply with the conditions: $\overline{AB} = \overline{CB} = \overline{BM} = 1$, $\overline{EA} = 0.19$, $\overline{CE} = 1.11$, $\overline{MD} = 0.403$, $\overline{FD} = 0.12$ and $\overline{CF} = 2.05$. Point M of connecting rod *2* in four-bar linkage $EABC$ describes connecting-rod curve *a-a* of which the portion shown by a heavy continuous line approximates a circular arc of radius $\overline{DM}$ with its centre at point D. When point M travels along this portion, link *4*, designed as a flywheel, remains almost stationary, i.e. it practically has a dwell. At one of the extreme positions (dead points) of the mechanism (shown in the drawing), points F, D and M lie on a single straight line. From this position, flywheel *4* can begin rotating either clockwise or counterclockwise. Consequently, one revolution of crank *1* corresponds to one revolution of flywheel *4* in the same direction and with a prolonged dwell, or to one revolution in the opposite direction with no dwell.

757	CHEBYSHEV MULTIPLE-BAR LONG-DWELL MECHANISM	LW D



The lengths of the links comply with the conditions: $\overline{AB} = \overline{CB} = \overline{BM} = 1$, $\overline{EA} = 0.305$, $\overline{CE} = 0.76$, $\beta = 114°$, $\overline{MD} = 0.66$, $\overline{FD} = 0.8$, $\overline{CF} = 1.66$ and $\overline{EF} = 2.36$. Point M of connecting rod *2* in four-bar linkage $EABC$ describes connecting-rod curve *a-a* of which a certain portion, shown by a heavy continuous line, approximates a circular arc of radius $\overline{DM}$ (link *3*) with its centre at point D. When point M is on this portion of path *a-a*, link *4* is almost stationary, i.e. it practically has a dwell at one extreme position. The length of the dwell is approximately equal to one half-revolution of crank *1*.

758	CHEBYSHEV MULTIPLE-BAR DWELL MECHANISM	LW D



The lengths of the links comply with the conditions: $\overline{AB} = \overline{CB} = \overline{BM} = 1$, $\overline{EA} = 0.54$, $\overline{CE} = 1.3$, $\beta = 80°$, $\overline{MD} = 1.603$, $\overline{FD} = 0.695$, $\overline{CF} = 1.8$ and $\overline{EF} = 2.78$. Point M of connecting rod *2* in four-bar linkage $EABC$ describes connecting-rod curve *a-a* which is self-intersecting at point C. The portion of this curve shown by a heavy continuous line approximates a circular arc of radius $\overline{DM}$ with its centre at point D. When point M is on this portion of path *a-a*, link *4* is almost stationary, i.e. it practically has a dwell at a certain intermediate position. The return stroke of link *4* has no dwell.